

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
29 January 2004 (29.01.2004)

PCT

(10) International Publication Number  
WO 2004/010208 A1

(51) International Patent Classification<sup>7</sup>: G02F 1/133

(21) International Application Number:  
PCT/KR2002/001767

(22) International Filing Date:  
18 September 2002 (18.09.2002)

(25) Filing Language: Korean

(26) Publication Language: English

(30) Priority Data:  
2002/42653 19 July 2002 (19.07.2002) KR

(71) Applicant (for all designated States except US): SAM-  
SUNG ELECTRONICS CO., LTD. [KR/KR]; 416,  
Maetan-dong, Paldal-ku, 442-370 Suwon-city, Kyungki-do  
(KR).

(72) Inventors; and

(75) Inventors/Applicants (for US only): KANG, Moon-Shik

[KR/KR]; Hyojachon Hyundai Apt. 105-402, Seo-  
dang-dong, Bundang-ku, 463-767 Seongnam-city,  
Kyungki-do (KR). LEE, Inn-Sung [KR/KR]; Ahju Apt.  
Na-dong 312, Woncheon-dong, Paldal-ku, 442-380 Su-  
won-city, Kyungki-do (KR). HAN, Song-Yi [KR/KR];  
Sanggal-ri 487, Kiheung-eup, 449-905 Yongin-city,  
Kyungki-do (KR).

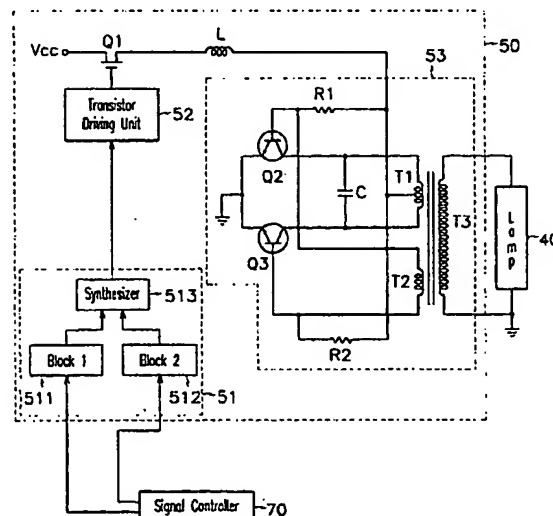
(74) Agent: YOU ME PATENT & LAW FIRM; Teheran  
Bldg., 825-33, Yoksam-dong, Kangnam-ku, 135-080  
Seoul (KR).

(81) Designated States (national): AE, AG, AL, AM, AT, AU,  
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,  
CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,  
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK,  
LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX,  
MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI,  
SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC,  
VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM,  
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),  
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),

[Continued on next page]

(54) Title: A LIQUID CRYSTAL DISPLAY



(57) Abstract: The present invention relates to a method of controlling luminance of a backlight based on a processed image data after receiving information of image data, in order to improve the visibility of moving picture. An inverter according to the present invention includes a first block generating a first luminance control signal with an analog value depending on the luminance control signal with a duty ratio depending on a synchronization signal. The luminance control signals generated by the respective blocks are synthesized luminance control signal. Accordingly, a liquid crystal display employing two backlight control methods can be provided. Thus, it is possible to remove the drag phenomenon of a screen and, at the same time, to improve the visibility for moving picture.

WO 2004/010208 A1